

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9490
Exam Date: 05/09/2023

1. Current Owner:
ROLLING MEADOWS RANCH HOA PO BOX 264 ATHOL ID 83801-0264
2. Accompanied by: Michael Foster
Phone No: 208-610-3697
Address: Same as above
Relationship to permit Holder: HOA Director

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap & DRG.

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap
2. Other water rights with the same point-of-diversion: NO Overlap

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L2 (NW¼ NE¼), Sec. 1, Twp 53N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS; POD located at -116°38.3461, 47°58.4001 well D-Tag D0041488.

PLACE OF USE: MUNICIPAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
53N	03W	1		X L2	X	X													

Method of Determination: Beneficial use field examination & Arcmap aerial imagery.

3.
 - X Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
 - X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
 - X Aerial Photo Attached (required for irrigation of 10+ acres).
 - X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0041488	FRANKLIN ELECTRIC	10			

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
FLOWMETER	PROPELLER	McCROMETER				

2. Measurements: Applicants diverting works incorporate a McCrometer brand McPropeller flowmeter installed from main water line from well prior to reaching the 90,000-gal storage reservoir. The system was operated, and the flowmeter was timed with resulting flow an average of 56.0 gpm or 0.13 cfs considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: two flow measurements taken using stopwatch and flowmeter equaling:

- 100 gal / 105 sec x 60 sec/min = 57.44 gpm
- 100 gal / 110 sec x 60 sec/min = 54.54 gpm
 - Average of two measurements = (57.44 gpm + 54.54 gpm) / 2 = 55.99 gpm = 56.0 gpm = **0.13 cfs** considering department rounding standards.

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation: n/a

2. Volume Calculations for Other Uses: Municipal annual volume:

- 19 active service connections annual volume = 3,447,000 gal (YR 2022 report) / 325,850 gal per af = 10.6 af considering department rounding standards.
- 3 dedicated stub-in service connections pro-rated annual volume = 1.2 af per parcel x 3 parcels = 3.6 af.
- Total annual volume = 10.6 af (active service connections) + 3.6 af (stub-ins) = **14.2 af**.

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 5/9/2023 with the applicant's HOA Director, Michael Foster, showed a single groundwater well serving water for municipal uses at Rolling Meadows Ranch Subdivision. At the POD, well D0041488 has a 10 HP Franklin Electric pump motor installed. The diverting works incorporate a McCrometer brand McPropeller flowmeter installed in the main water line from the well prior to reaching the 90,000-gal community reservoir. I performed two separate flowmeter measurements after allowing the system to operate & stabilize. The resulting average of two measurements equaled **0.13 cfs** considering department rounding standards, which is recommended for licensing.

There is a second well and small pump house co-located with the applicant's pump station & reservoir; well D0028412 is owned by a neighboring property and is not service connected to the applicant's system. This well has a six-inch casing versus the applicant's well which has an eight-inch casing. The applicant was approved to develop two groundwater PODs, but at the time of exam only one well had been constructed for the system. I removed the POD designated in the NW¼NE¼ of Gov Lot 2, Section 1 during licensing review. The water system incorporates 4ea Gould 10 HP booster pumps for distribution to service connections from the storage reservoir. A SCADA management system is installed on the applicant's system.

The municipal POU was observed during the field exam and conveyance system components sketched out on field maps. During licensing review ArcMap aerial imagery and Bonner County GIS tax parcel maps were used to validate and assign the POU, which mirrors the permit POU. Main water lines route south from the storage reservoir along the access road to the well lot, and tee running along the main paved road within the subdivision. From the road way dedicated water connections are found at each parcel's road front with manual shut off valves located in each water box. At time of exam there were 19 developed service connections with homes and irrigation occurring & three dedicated stub-in parcels, one of which had a home actively being constructed at time of exam. I removed the Large POU during licensing review and have assigned the POU based on normal legal description requirements that will reflect in the POU legal description table on the licensing approval.

The applicant submitted annual volume reports reflecting YRs 2018-2022 annual volume with their Statement of Completion form. For the year 2021's volume report, the value was considerably higher than 2020 & 2022. I questioned Mr. Foster about what appeared to be an error in data reporting but turned out to be a leaky service line for Lot 5, Blk 2, which resulted in a 2-million-gallon leak back to the aquifer during 2021. Due to the reporting value including a major loss of water from the leak I'm not recommending licensing using 2021 volume data, rather I'm using YR 2022 to recommend licensing for this right's annual volume. Annual volume was assessed by 19 developed parcels = 3,447,000 gal or 10.6 af + 3 stub-in parcels at 1.2 af per parcel = 10.6 af + 3.6 af = **14.2 af** which shall be assigned to the annual volume and maximum diversion volume for licensing purposes.

The water system includes 11 fire hydrants installed at intervals throughout the POU off the eight-inch main line for use in the event fire suppression is required. There was no fire suppression water used in 2022, so the total annual volume recorded for 2022 was used when designating the licensing volume. Considering that IDWR's department standard diversion volume for one home with ½ ac irrigation is equivalent to 1.2 af annually, the applicant's water system with 19 developed connection and three stub-ins has demonstrated a conservative use of water (53%) compared to 1.2 x 325,850 gal per af x 22 homes = 26.4 af.

Department memorandum to file dated 4/6/2023, authored by Ashley Ritter, identifies the applicant asserts 20 connections out of 22 currently serving water. One of the connections I have recommended as a stub-in is service connected to the home that was currently being constructed at time of field exam. The property owner did use an RV occasionally during home construction, but I'm recommending annual volume be reflected as stub-in lot as the minor water usage from the RV is not reflective of what a home with lawn shall consume annually.

Conditions 26A, 046, and 134-(PWS: ID1280314) were removed from the permit during licensing review due to applicant complying with the conditions. I removed a text condition, condition No.9 on the permit, which stated:

- The total annual volume for this permit and any subsequent license shall not exceed 40.3-acre-feet per annum, except for use in documented fire protection incidents.

I removed text condition No.11 from the permit based on the applicant complying with requirements accompanying submission of the Statemen of Completion form. I've added condition X59 & X60 to describe the POD & POU description within a named subdivision. I've added condition 004 to the license. All other conditions on the permit shall be carried forward to licensing. Conditions of permit approval No. 12 & No. 13 shall remain in effect into licensing based on agreements between Kootenai Environmental Alliance and the applicant "which may be independently enforceable by a court of law" as annotated in the text of the condition.

Due to the text condition requiring the right holder annually report the total annual volume withdrawn and the annual volume

of water delivered to each connection..., condition 175 & 01R are not recommended for licensing purposes. Normally both conditions are applied to WRs within the RPGWMA, but both conditions are satisfied by the previous volume reporting text condition on the permit. There are no overlapping concerns for this water right.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
MUNICIPAL	01/01 to 12/31	0.13 CFS	14.2 AF

Totals: 0.13 CFS 14.2 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION

Luke Bates -

Field Examiner's Name

E. Bates

Date

11/13/2023

Reviewer

Chris Bell

Date

State of Idaho
Department of Water Resources
Attachment to Field Exam
95-9490

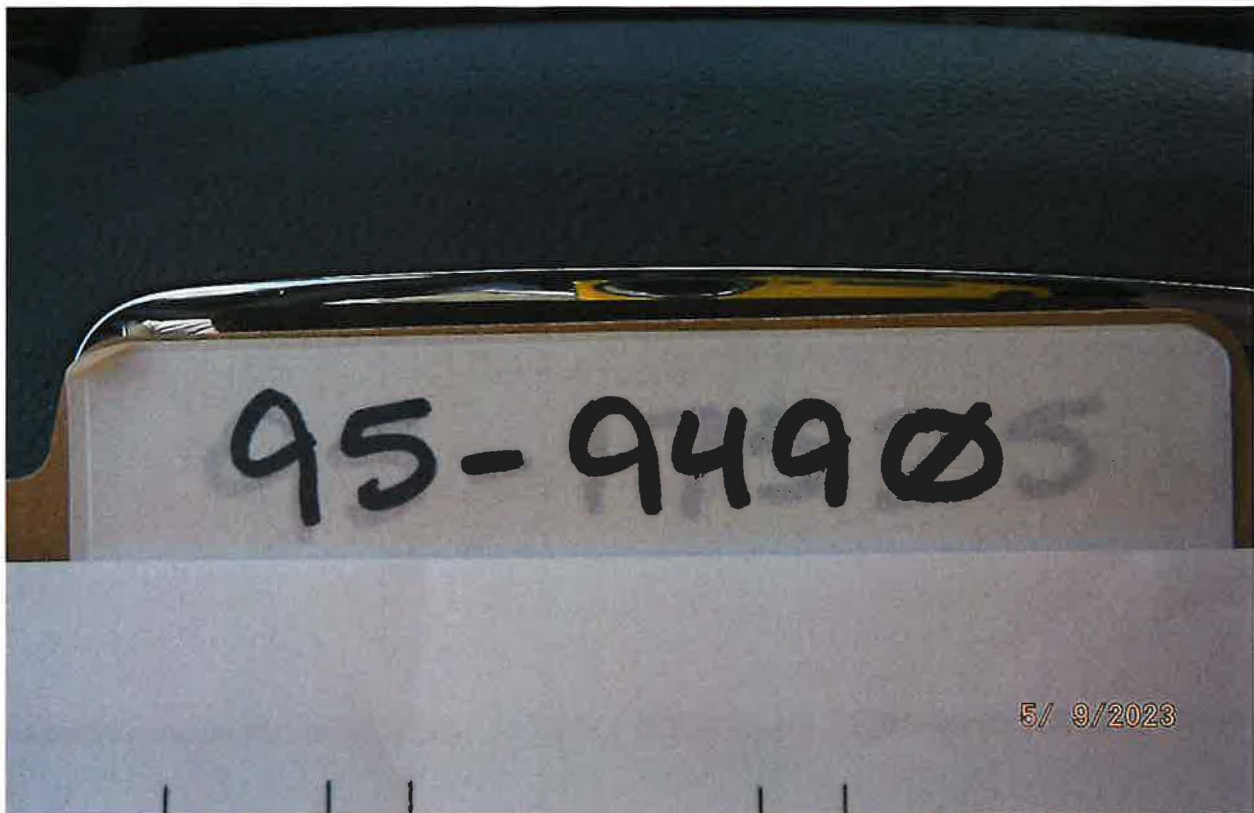
MUNICIPAL System Diagram



- Water Service Area Boundary
- Townships
- PLS Sections
- Quarter Quarters
- Point of Diversion
- Stub-in(s)

0 0.075 0.15 0.3 Miles





BENEFICIAL USE FIELD EXAM DATE 5/9/2023



POD – GW WELL (FOREFRONT OF PICTURE) – WELL IN BACKGROUND NOT ASSOCIATED WITH PERMIT



WELL D-TAG D0041488



POD – GW WELL, 90,000-GAL STORAGE RESERVOIR IN BACKGROUND

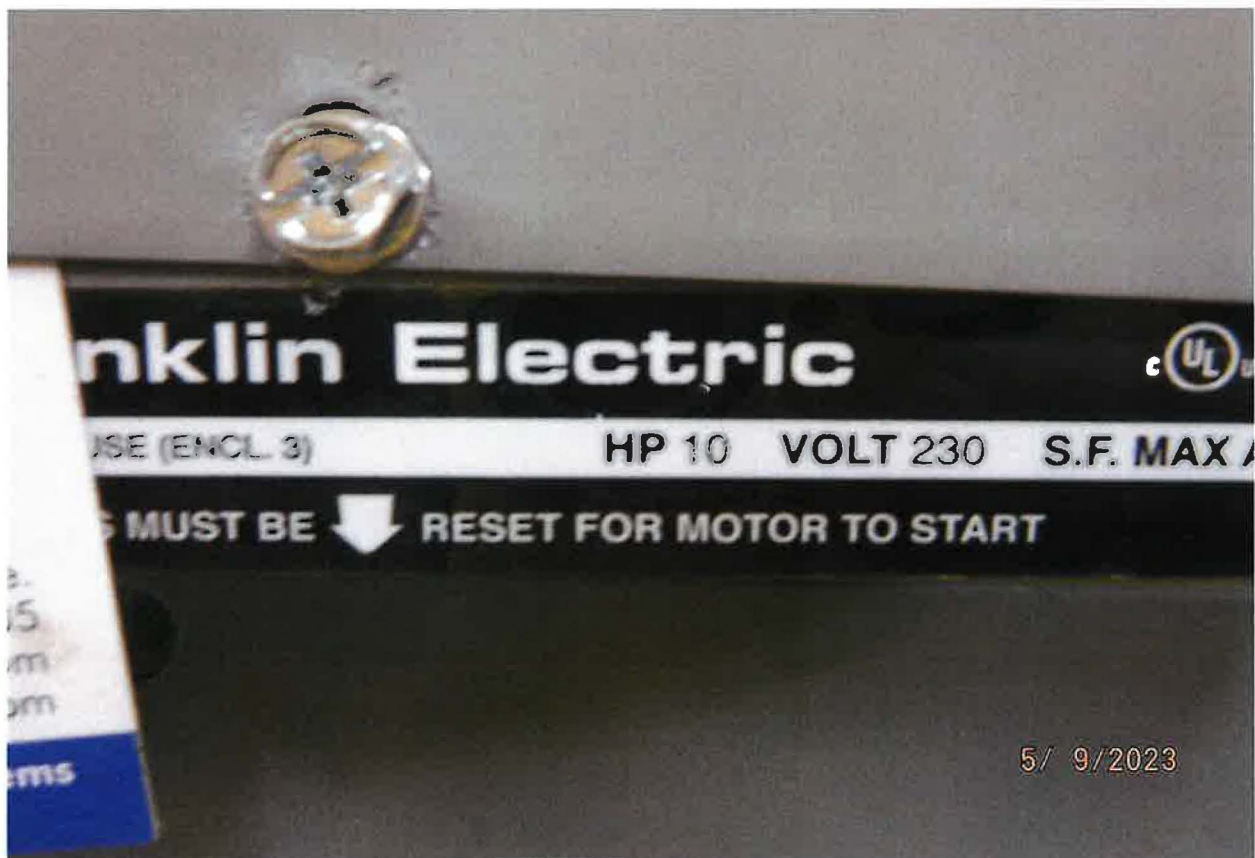


90K STORAGE RESERVOIR WITH WATER LINE SHUTOFF VALVES





DIVERTING WORKS – PUMPHOUSE ATTACHED TO STORAGE RESERVOIR



10 HP FRANKLIN ELECTRIC PUMP MOTOR INSTALLED ON WELL PUMP

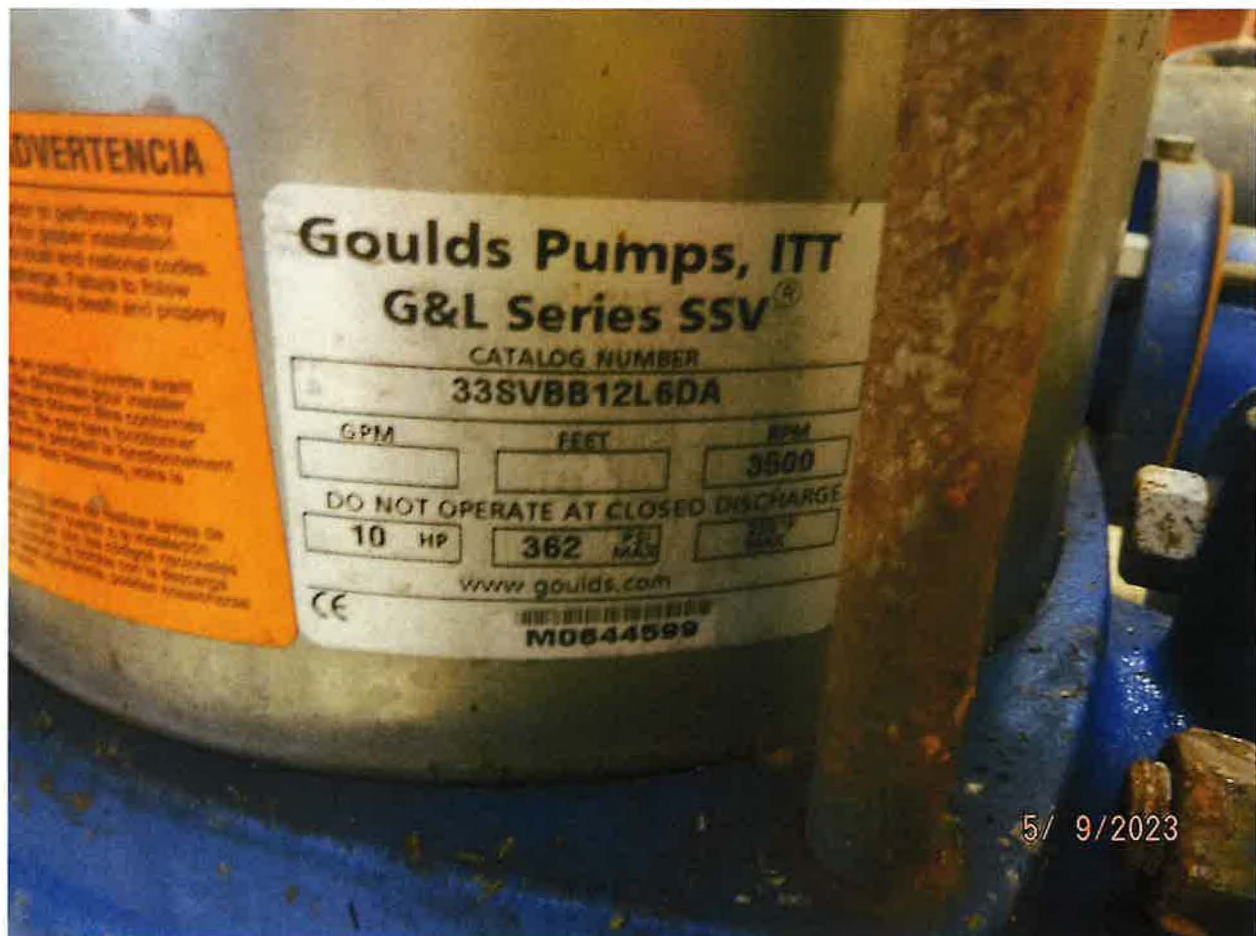


MCCROMETER FLOWMETER INSTALLED INLINE FROM MAIN SERVICE LINE FROM WELL, PRIOR TO RESERVOIR TANK AND WATER DISTRIBUTION VIA BOOSTER PUMPS



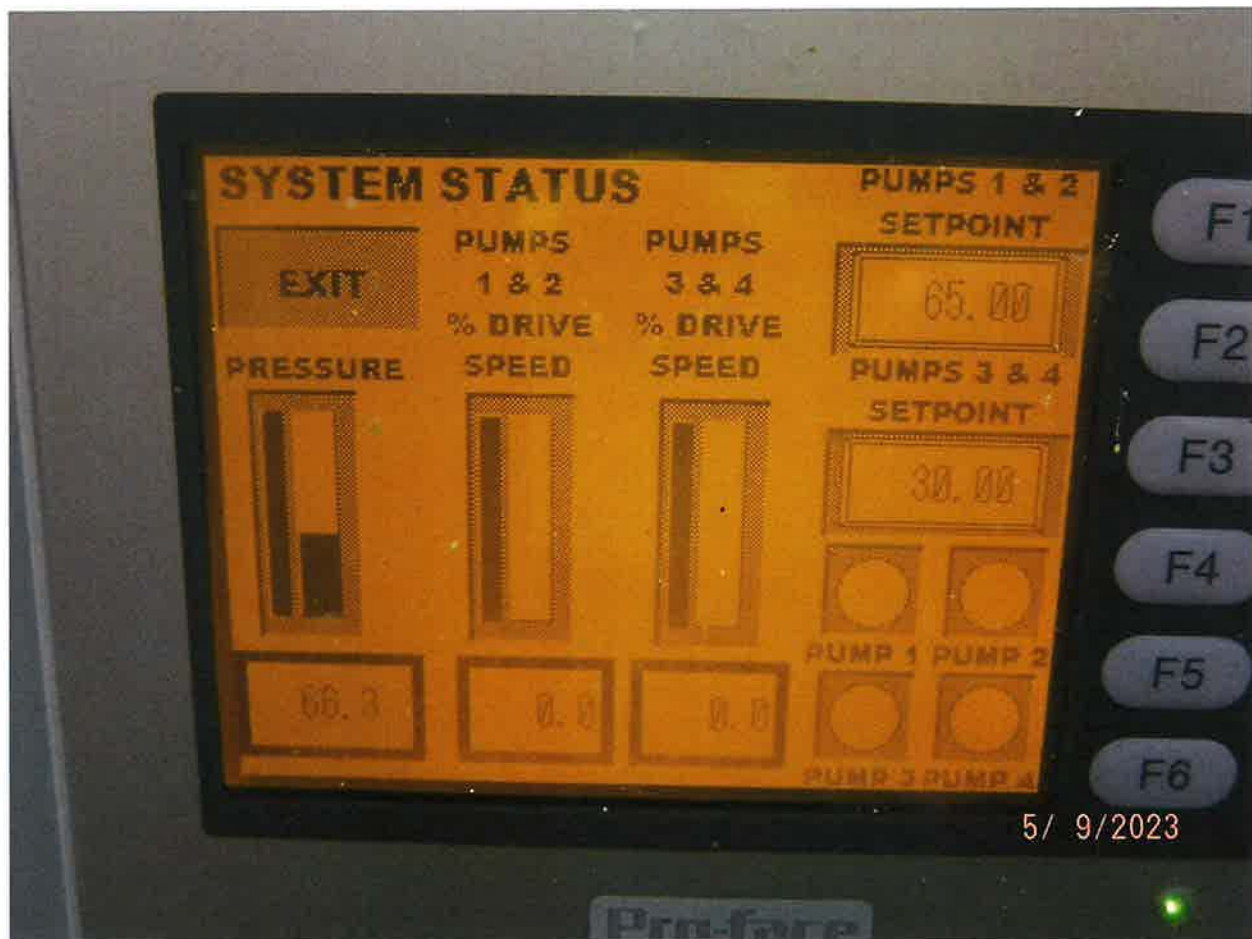


WATER CONVEYANCE SYSTEM - 4EA GOULDS 10 HP BOOSTER PUMPS USED FOR DISTRIBUTION FROM STORAGE RESERVOIR TO SERVICE CONNECTIONS.





WATER SYSTEM INCORPORATES A DIGITAL SCADA MANAGEMENT SYSTEM





MUNICIPAL POU – EXAMPLE STUB-IN – THREE (3) PARCELS OUT OF 22 TOTAL HAVE DEDICATED STUB-INS FOUND AT TIME OF EXAM; PARCELS RPOK0140020090, RPOK0140020030, & RPOK01400200150





MUNICIPAL POU – 1 OF 19 BUILT OUT RESIDENCES SERVICE CONNECTED; LARGEST LAWN IRRIGATION OF ALL 22 PARCELS ON SYSTEM – RP0K0140020140



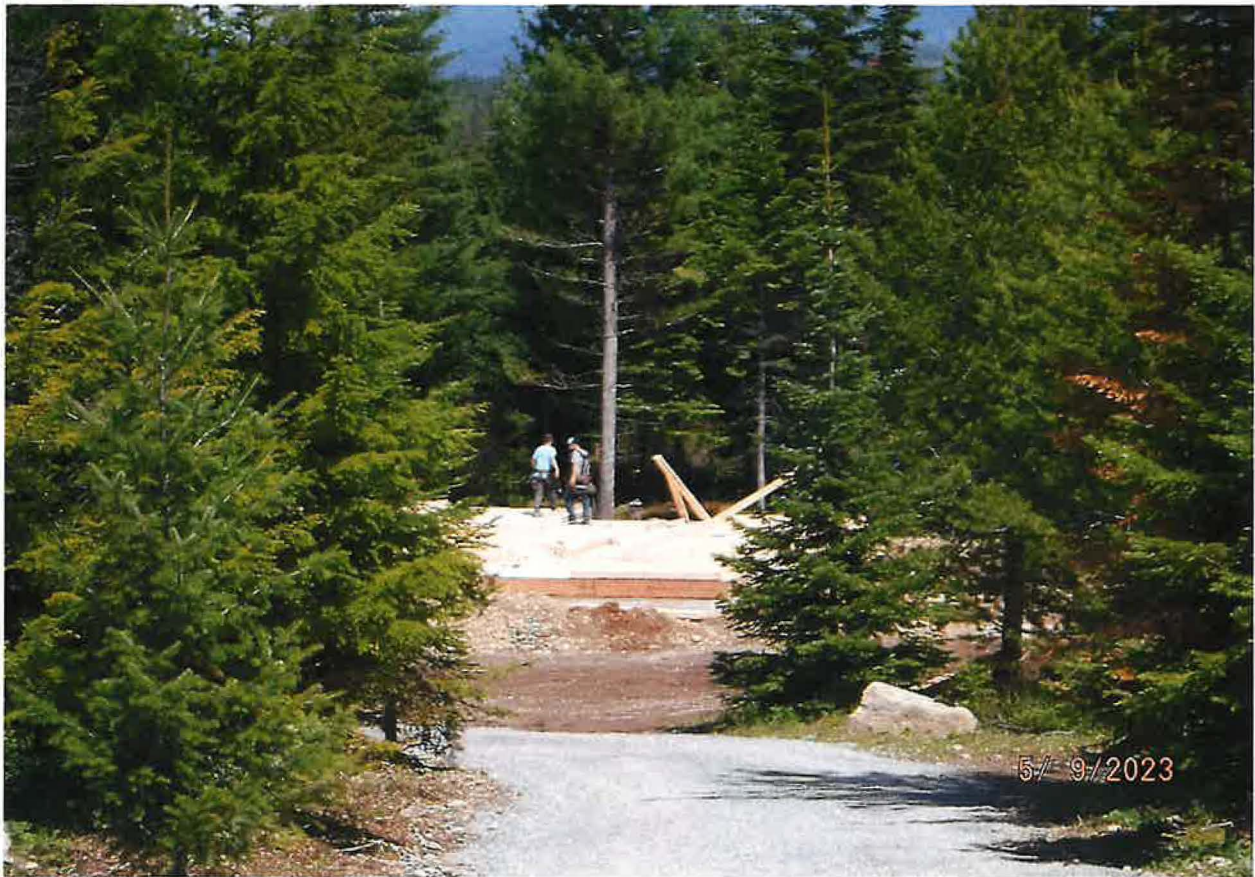
MUNICIPAL POU –



MUNICIPAL POU – EXAMPLE OF BUILT OUT LOT WITH RESIDENCE AND YARD IRRIGATION – NOTE FROST FREE HYDRANT LEFT OF DATE STAMP



MUNICIPAL POU – EXAMPLE OF RESIDENCE SERVICE-CONNECTED ROLLING MEADOWS RANCH HOA WATER SYSTEM.



MUNICIPAL POU – 1 OF 3 STUB-IN PARCELS; PROPERTY OWNER ACTIVELY BUILDING AT TIME OF EXAM
BUT WATER USE NOT STARTED YET – RP0K0140020090



MUNICIPAL POU – EXAMPLE OF PARCEL WITH RESIDENCE SERVICE CONNECTED TO WATER SYSTEM



MUNICIPAL WATER SYSTEM INCORPORATES 11EA FIRE HYDRANTS LOCATED THROUGHOUT THE SUBDIVISION FOR FIRE SUPPRESSION REQUIREMENTS

